difference in the location of a data distribution, a difference in a shape of a data distribution, or a combination thereof.

19.   (Amended) The method of claim 1, wherein statistically analyzing comprises conducting a Kolmogorov-Smirnov Z Test.

56.   (Amended) A method of determining an antimutagen comprising:

contacting a test compound and a mutagen with a host cell comprising a DNA sequence encoding a fluorescent protein operably linked to a mutagen sensitive gene, the host cell being in stationary growth phase;

monitoring a host cell preparation for the fluorescent protein; and

determining an antimutagen when an amount of the fluorescent protein falls below a predetermined threshold value, wherein determining further comprises statistically analyzing a difference in the location of a data distribution, a difference in a shape of a data distribution, or a combination thereof.

Please add and consider new claim 58 as follows.

58.   (New) The method of claim 1, wherein contacting further comprises growing the host cell at logarithmic phase.